

**CONTINUED INCREASE IN EAST AUSTRALIAN HUMPBACK WHALES IN 2001, 2002.** *Memoirs of the Queensland Museum* 49(2): 712. 2004:- Observations of humpback whales passing Point Lookout (27°26'S, 153°33'E) on North Stradbroke Island between 1984 and 1999 have shown that there has been a steady increase in the east Australian proportion of the Area V (130°E – 170°W) stock over that period (Paterson et al., 2001). This note describes the results of observations in 2001 and 2002 which show continued increase in stock size.

Observations were made by RP and PP from the same 65m high position as before, for the 10 weeks encompassing the peak of the northern migration. Methods of observation and analysis followed those described by Paterson et al. (1994, 2001). A total of 1,093 of northbound humpback whales were seen in 2001 and 984 in 2002. On 28 June 2002, 84 humpback whales were seen in 10.8 hours, the largest number in a single day since observations began in 1978.

The timings of the migrations past Point Lookout are shown on a weekly basis in Fig. 1. The differences between 2001 and 2002 are typical of the variation seen between migrations in previous years (Paterson et al., 1994, 2001).

Figure 2 shows the number of humpback whales seen per 10h averaged over the four and eight weeks at the peak of the migrations from 1984 – 2002. The vertical scale is logarithmic so that a constant rate of increase appears as a straight line. Linear regression lines, calculated using the logarithm of the values, give the average annual rates of increase shown in Table 1. The results show that a constant rate of increase is a good fit to the data points.

The rates of increase are within the confidence intervals for previous estimates (Paterson et al., 1994, 2001). From the

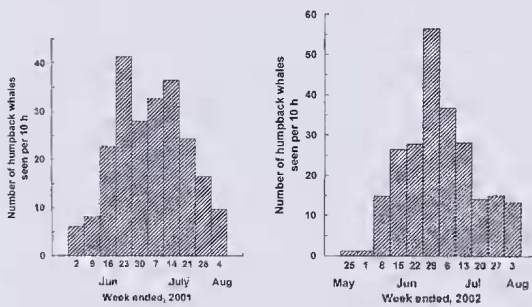


FIG. 1. Humpback whale sightings on a weekly basis observed from Point Lookout.

TABLE 1. Estimates of annual rate of increase and confidence intervals from data observed over four and eight weeks at the peak of the northern migration.

	4 weeks	8 weeks
Number of points	15	11
Rate of increase	10.8%	10.5%
95% confidence interv.	10.2 - 11.5%	10.0 - 11.1%
99% confidence interv.	9.9 - 11.8%	9.7 - 11.4%
Correlation coefficient	0.996	0.998

stock size estimate for 1999 of 3,600 ± 440 whales (Paterson et al., 2001), it is estimated that the stock size in 2002 would have been 4,860 for 10.5% increase or 4,900 for 10.8% increase (Table 1).

#### Literature Cited

PATERSON, R., PATERSON, P. & CATO, D.H. 1994. The status of humpback whales *Megaptera novaeangliae* in East Australia thirty years after whaling. *Biological Conservation* 70, 135-142.

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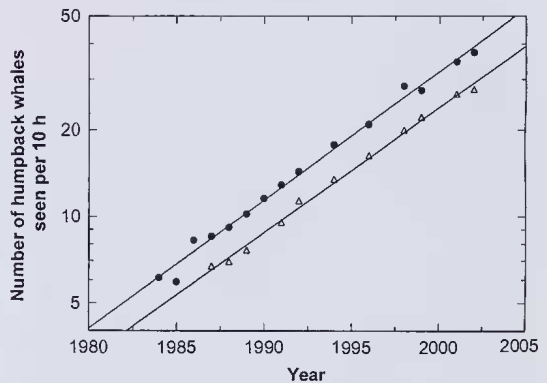


FIG. 2. Humpback whale sightings per 10h averaged over the four weeks (filled circles) and eight weeks (open triangles) of the northern migration.